SEGMENTING VIDEO INPUT USING HIGH-LEVEL FEEDBACK

ABSTRACT

Systems and methods of segmenting video input are described. These systems and methods use feedback processing that operates on levels of information above the pixel level, such as image regions, frame-wide statistics, or object and event semantics. In one aspect, one or more pixel-level historical

5   models of spatially local pixel observations is maintained. Pixels are segmented into two or more labeled groups based at least in part upon comparison of pixel-level video input with the one or more pixel-level historical models. The pixel-level historical models are updated based at least in part upon feedback maps identifying pixels respectively segmented into the one or more labeled groups in

10   conformity with a spatially non-local segmentation model.